The Canadian
# Chartered Accountant

VOLUME 56 JUNE 1950 NUMBER 6

## COMMENT AND OPINION

### 48th Annual Meeting

THE 48th Annual Meeting will be held in Charlottetown, Prince Edward Island on August 21 to 25. The Island Institute members, hosts to this year's annual meeting, extend a warm invitation to all members of the Association to attend and assure them that arrangements have been made for the accommodation of all.

Three technical sessions have been arranged, which will be of particular interest to practitioners in smaller centres. On Wednesday morning, August 23, the session will be on municipal accounting and auditing. Mr. C. L. Beazley, K.C., Nova Scotia's deputy provincial secretary, will speak on "The Responsibilities of the Auditor of a Municipality", and Mr. J. H. Lowther, director of the Public Finance Division of Dominion Bureau of Statistics, will speak on "Uniformity in Municipal Accounting and Reporting". On Thursday morning, August 24, the topic will be "Taxation of Individuals and Closely Held Corporations". Professor J. R. Petrie of the University of New Brunswick will speak on "Taxation Problems of Small Businesses", and members of the Association will speak on other points of particular interest. In the afternoon the problems of the auditor of proprietorships and closely held corporations will be discussed. The annual general meeting will be held on Friday morning, August 25.

A reception will be held for all in attendance on Tuesday evening. A tour to the North Shore of the Island to visit the famed White Sand Beaches has been arranged for the next day to be followed by a shore dinner and a country dance. Thursday evening, there will be a moonlight excursion, and the final function, on Friday, will be the dinner and dance. Devotees of the equine will be interested in harness racing under lights on the evening following.

The Committee on Education and Examinations will meet on Monday, August 21, and Council will meet on Monday and Tuesday. The Executive Committee will meet on Friday and Saturday, August 18 and 19.

Further details of the programme will appear in next month's issue but members are urged to make their arrangements early. A word to the wise. For those who have not been there before, you are hereby informed that Maritime hospitality leaves nothing to be desired (except a strong constitution).

### Manitoba

WITH our minds and hearts full of the Manitoba flood tragedy, it is a little difficult at this time in middle May to concentrate on matters affecting the profession. We think instead of the people whose savings and whose labour

and effort have been invested in their homes and in prized possessions and gardens and who have lost these personal fruits of a long period of endeavour. Apart from financial loss and the inevitable months which will be consumed in rehabilitation in the barest sense, we think of lost pictures and books and hobbies, of the lost prides of furnishings so dear to the hearts of the womenfolk, of the ruined toys and electric trains and all the physical things which go to make a happy household. The summer holidays which will be turned into dreary work and salvage periods, the loss of restful days to those who have toiled during a stern winter — none of us who have escaped the disaster can know the real losses of this part of our population. We send to them our heartfelt sympathy and express our hope that all of us far removed from the scene will contribute to the utmost so that, before winter sets in again, family establishments and essential services will be in working condition.

* * *

Turning to the economic disturbance which will result, it is interesting to speculate on the effect on trust and loan and life insurance companies and mortgagees generally. Their security for loans will be greatly reduced and in many cases the value of personal covenants will have disappeared. But to some industries, the work of reconstruction will result in an unexpected boom of sales of goods and services, and profits will be made far beyond those contemplated earlier this year. It is quite possible that the inflationary pressures resulting from a surge of orders cannot be resisted and that further direct injury to the sufferers will result. We would hope that vendors of building materials and supplies, to say nothing of the electrical and other trades, will hold firmly to the line and discourage and prevent over-charging. To mortgagees we express the hope that concerted action will be taken to ease, for a time, burdensome schedules of payments. No doubt some governmental assistance will be required and be forthcoming to act as a cushion so that the load may be spread out widely. We have here an opportunity for private enterprise to do a great public service without governmental supervision by way of price ceilings, priorities and moratoriums.

# Accounting for the Exploration And Development Of Metalliferous Mines

By Charles R. Elliott, C.A.

**A background to the accounting problems of the mining industry**

IN THE popular conception of man's rise from dependence on tooth and claw we visualize him taming the wild ancestors of his present flocks and herds and painfully urging the earth to grow two blades of what he wants where formerly it grew one blade that he did not want. Before he could become a farmer he had learned the use of tools and laid the foundation for modern industry. Our knowledge of the earliest use of minerals is limited and mostly conjectured, but it seems probable that during the stone age men noticed that their fires sometimes melted some of the metal in the rocks. Later they probably found that the softened metal could be beaten into weapons and utensils, specimens of which have been found. Recorded history shows the use of copper, tin and gold by ancient civilizations going back over six thousand years.

All modern industry depends on the products of the mines for its existence. Not only is the research of industry constantly expanding its use of these products, but new discoveries are continually adding to the already long list of useful minerals. Today, world peace may hang on the possession by the peaceful nations of adequate supplies of uranium ore; tomorrow, those same ores may spell a new industrial revolution when the secret of harnessing the energy locked in the atom is discovered; as this is written, the papers and magazines are carrying stories of the release of certain isotopes from Chalk River for useful employment by industry.

## The Importance of Mineral Production

In Canada the importance of mineral production to the national economy can be simply stated in terms of the value of the output which, including oil and natural gas, will in 1949 approach $900,000,000 and which, on the basis of present developments underway, is expected to pass $1,000,000,000 during the next few years. The significance of these figures is more readily appreciated when converted into terms of employment for Canadian labour; of markets for Canadian fisheries, farms and forests; of foreign exchange for Canada's commerce and raw material as well as customers for her factories. In terms of defence, Canada's mines provided 90% of allied nickel requirements, 20% of lead, 10% of copper and 75% of asbestos during the second world war. During the early 1930's Canada's expanding gold mines cushioned the effect of the depression,

speeded recovery in Canada, and were an important factor in establishing her sound financial position when other countries were impounding currencies. During the early years of the war when dollars had to be found for imports of strategic supplies, the output of her gold mines was an important factor in maintaining Canada's credit.

### History of Prospecting

Mines are a wasting asset, so that a constant and aggressive search for new deposits is of first importance in maintaining a healthy mining industry. The search for mines, or "prospecting", is in itself an industry within the mining industry. The prospector of story and legend pictures a hardy bearded character leading a heavily laden burro across desert wastes or floating down the Yukon with his gear on a raft to stake out his claim and his fortune. Thus are portrayed in caricature the pathfinders who have blazed the trails that have led to great discovery and new wealth beyond their fondest dreams, though doubtless many of them ended their days unrewarded still following leads to the mother lode. Today, much of the hardship of the trail has been relieved by the aeroplane and the "kicker", or outboard motor, to move the modern prospector to his location, but the search is still primarily the same tedious searching and mapping of rock outcrops, sampling and "panning" carried out by individual prospectors. The early Canadian prospectors followed uncharted trails, for the most part the streams and lakes that are characteristic of the Canadian Shield. Today, much of the favourable territory has been mapped and good maps and aerial photographs are obtainable. The mines departments of both the Federal and Provincial Governments maintain geological surveys mapping and correlating geological information gathered by their field parties and from information secured from mining and exploration companies.

### Financing the Exploration

Early prospectors often financed themselves by securing "grubstakes". A speculator or a mining interest frequently undertook to grubstake a prospecting party for one or more seasons in the field receiving in return an interest in any discovery made during the term of the agreement. Sometimes more than one party contributed to the grubstake and from this the prospecting syndicate developed. Mounting costs of maintaining prospecting parties led to increased use of this method of grubstaking, speculators finding it desirable to spread their bets by investing small sums in several syndicates instead of risking all on a single party. This practice was extended during the 1930's to such an extent that some of the Provinces brought in legislation providing for special limited incorporations at low cost to assist this method of financing search. Exploration companies have been organized as a means of providing speculative capital on a more permanent basis. Some of these have been new incorporations; others are mining companies that, having exhausted their ore bodies, have turned their capital and experience to the search for minerals, some with outstanding success. There has been and is considerable public interest through the stock market in the exploration companies, but grubstake financing is largely recruited from private speculators interested in the industry, the exploration funds of operating companies and the exploration companies.

### Special Explorations

Mention should be made of a more specialized method of exploration frequently adopted to explore undeveloped hinterlands and other exploration requiring expensive initial preparation as in the search for oil. A concession to pros-

pect a tract of territory is secured from the Government having jurisdiction. Sometimes a separate company is incorporated to carry out the venture. Capital is provided and one or more parties equipped and sent out during the term of the concession for the purpose of delimiting the area in which the search for mines is most likely to succeed. Following this general reconnaissance, favourable areas are subject to more intensive search. Concessions of this nature generally carry provision for a minimum annual expenditure and the ultimate acquisition of only a portion of the area granted after a reasonable period in which to reconnoiter the area and make selection. The Government in question may also require filing with it reports on the work done in the area. Examples of this type of exploration are found in Labrador where the iron developments are currently occupying the news, and in the Alberta oil fields. Requiring large amounts of capital, such ventures are, as a rule, undertaken by established exploration, mining and oil companies, singly, or in groups who, as well as providing the capital, can provide the experienced direction and the technical personnel required.

In a sense it is true to say that the "easy to find" mines have been found, since presumably the easily discovered deposits in populous areas are usually discovered first. Today, thanks to the aeroplane, even the remote areas are being subjected to fairly close investigation. Much of the favourable rock is overlain by drift and topsoil, often heavily wooded or buried in moss and muskeg, but even where bed rock is exposed, mineralization may not reach the surface. The minefinder must try to "see" into the earth to discover its secrets. With the development of geological knowledge have also come scientific and mechanical developments to assist. The most common is, of course, the core drill (e.g. diamond drill) by which samples of the rock at depth can be obtained. Formerly, such information could only be gained by shafts, tunnels, and other underground workings. The bulldozer is finding favour for removing overburden to expose the underlying rocks. Development of magnetic and electrical instruments which, by measuring differences in the magnetic qualities and electrical resistance, outline rock structure and mineralized zones and help to limit the areas to be tested. The geiger counter is now common equipment required for the detection of radioactive minerals (uranium). Use of seismic instruments by the oil companies in exploration has been developed to a high degree.

**Mr. C. R. Elliott, C.A., was admitted to the Ontario Institute in 1934 and shortly thereafter was appointed assistant secretary-treasurer of Connell Mining and Exploration Company and its associated companies. He is now treasurer of Central Patricia Gold Mines Ltd., Conwest Exploration Co., United Keno Hill Mines Ltd., and a number of other companies associated with these.**

## The Element of Chance

While success in minefinding requires hard work, persistence and determination and the intelligent application of all available information and aids, the element of chance is ever present. The following extracts from a recently published history of a gold mine illustrate both the incidence of chance and the determined search:—

> Prospecting in the . . . . . . district began in 1926. In 1927 . . . . . a prospecting group . . . . . sent . . . . . (two men) . . . . . to stake the chalcocite. These men walked in (from the railroad), an airline distance of 90 miles . . . . . staked 18 claims . . . . . trenches were noted showing well oxidized mineral . . . . . (Exam-

ined) on a 30 day examining option from the syndicate . . . . . the chalcocite vein proved . . . . . . of no importance and the iron showing did not resemble the quartz-copper sample . . . . . seen in Haileybury. The crew doing further trenching on the iron formation . . . . . cut a mineralized zone which panned well.

It is illustrative of the hazards of the business that the "quartz-copper" sample referred to was an important factor in the finding of this mine, although, in fact, it had come from an entirely different area where no mine has yet been developed. Staked as a copper mine in 1927 and discovered to be a gold mine in 1928 following a lead from old trenching done by earlier prospectors (probably in 1926 and not staked at that time because their best assay was only $3 in gold per ton) this mine commenced production in 1934 and up to December 31, 1949 produced 575,000 ounces of gold and paid $4, 575,000 in dividends. Other examples could be cited of the discovery of subsequently proven ore being delayed because the earlier searcher stopped just short of discovery.

### Accounting for an Exploration Company

Accounting for the prospecting syndicate or exploration company is simple. In general, transactions are recorded on a cash basis, any accrued liabilities being set up at a statement date by journal entry so that the books of account can be simply a general ledger, a cash book and a general journal. However, a "prospecting ledger" to record details of expenditure and a "mining claims record" to record any properties acquired are frequently used when the operations are on sufficient scale to warrant these subsidiary records. An "agreement register" and "diary" may also be kept as separate records, but the functions of these may also be conveniently incorporated in the "claims" record. The "cash" method for recording transactions, falling as it does into the pattern of the company's activities, is convenient. Accounts and vouchers payable at any time are not numerous, much of the expenditure being made in cash in the field.

### Balance Sheet of an Exploration Company

*Exhibit 1* (see p. 257), a *pro forma* balance sheet of a typical exploration company, is idealized for the purpose of illustration. Actual company statements frequently show additional items because, like most business, the exploration company picks up along the way its quota of extraneous transactions which do not bear directly on its main business.

The cash, receivables, and payables require no special mention except to observe that receivables and current accounts payable are usually not large. The "investment" and "exploration" sections of the balance sheet are the significant part of the picture.

The "investment" section will be considered here in two parts. The plant and equipment of the exploration company are relatively small, consisting probably of camp equipment, canoes and outboards, technical instruments such as magnetometers, compasses, etc., and small tools, unless, of course, the company also owns aircraft, which has as yet not become popular, companies preferring to utilize established transportation facilities. Consequently, until it has been absorbed in exploration expenditure, the company's capital is maintained in a liquid form and cash not immediately required is invested in "marketable securities". This, with the cash accounts and less bank borrowings if any, is the working fund. Probably, because the executive officers are familiar with the operations behind the securities of mining companies, the fund will frequently be found invested in the shares of min-

## EXPLORATION COMPANY LIMITED

### BALANCE SHEET

### As at 31 Dec 1949

### ASSETS

| | | |
|---|---|---|
| Cash on deposit | $ 50,000 | |
| Accounts Receivable | 3,000 | |
| Cash funds held by employees in field | 2,500 | |
| Marketable securities at cost (quoted market value $265,000) | 244,500 | $ 300,000 |
| Interest in mining companies and mining properties at cost less amounts written off: | | |
| Shares in mining companies (quoted market value $10,000,000) | $2,000,000 | |
| Shares in wholly owned subsidiary companies | 500,000 | |
| Advances to subsidiary companies | 1,500,000 | |
| Mining claims and expenditures thereon carried forward | 200,000 | 4,200,000 |
| Exploration and office equipment at cost | $ 25,000 | |
| Less written-off to date | 10,000 | 15,000 |
| | | $4,515,000 |

### LIABILITIES

| | | | |
|---|---|---|---|
| Accounts payable and accrued charges | | | $ 2,000 |
| Amount payable under terms of contract to purchase claims | | | 13,000 |
| Reserve for contingencies | | | 200,000 |
| Capital: | | | |
| Authorized 3,000,000 shares of no par value Whereof issued fully paid 500,000 shares for properties, mining claims and options to purchase mining claims and 2,500,000 shares for cash consideration. A total of | | $4,000,000 | |
| Balance at credit earned surplus consisting of | | | |
| Balance at credit of exploration account being excess of realization on sale, disposal or abandonment of securities and interests in mining properties and companies over expenditure and provision for contingencies | $ 250,000 | | |
| Balance at credit income account | 50,000 | 300,000 | 4,300,000 |
| | | | $4,515,000 |

*Exhibit 1*

ing companies. Sometimes, however, a "cushion" of cash or high grade bonds is held to keep funds for immediate needs sufficiently liquid, others utilize bank credits secured by the shares of mining companies which are held until stock market conditions permit favourable liquidation. When shown under this heading there should be included only reasonably marketable securities and the aggregate market value should be shown.

### "Mining Claims and Expenditures Thereon"

The designation "interest in mining companies and mining properties" is the real capital investment of the company and comprises the assets from which the company hopes to derive its income. Considering the industry as a unit, the sequence of acquisition, as indicated in the foregoing outline, is reconnaissance, prospecting, discovery, development and finally the operating mine. The expenditure covering the first part of this sequence carried out by the exploration company up to discovery and the early stages of development constitutes the charges to "mining claims and expenditures thereon". Under the mining laws of the Provinces and of the Territories a licensed prospector may stake a limited number of mining claims each year. The size of a claim varies, being 40 acres in Ontario, 25 acres in Manitoba and so on, and the regulations and methods of staking also vary. Reference should be made to the appropriate Acts and regulations for details, but in general the principle is the same, permitting licensed prospectors to stake mineral claims and eventually prove title to the minerals staked by Crown grant or lease after performance of the specified assessment work on the claims over a period, usually five years.

All the expenditure which leads to location, staking and assessment work to acquire title is regarded as the capital cost of the mineral claims. It may happen that the company may acquire through its prospectors a large number of contiguous claims which are regarded as a single group, but after prospecting, retain only a few of the more favourably located to carry, to patent or lease. The entire expenditure would, however, be regarded as the cost of the claims retained and charged against the group. In addition, considerable exploration and development work beyond the requirements of assessment work may be carried out and the cost of this is also charged against the claims. However, the exploration company seldom relies on its prospectors alone to secure favourable properties for exploration and it is common practice to purchase claims.

Outright purchase of mining claims for cash consideration is sometimes encountered, but the more popular method is the option to purchase which gives the optionee, for a cash consideration followed by subsequent payments over several months or a year or more, the right, while the option is in good standing, to prospect, develop and mine on the claims. To exercise the option in full, the optionee may be required to incorporate a mining company by a specified date, the mining company to acquire the claims, paying such consideration as may be agreed including shares in its mining company, of which a part will be issued to the original vendors, the exploration company taking the remainder of the consideration to repay it for the cash payments and for the cost of the work it has done. Until such time as the option is exercised in full, all expenditures thereon, including option payments, are charged to mining claims and expenditure thereon.

### Disposal of Claims

Eventually the mining claims, whether acquired by staking, purchase or held under option to purchase, will be dis-

posed of by abandonment, sale to others, transfer to a mining company or developed into an operating mine by the exploration company without separate incorporation. The last disposition is not common practice and will not be considered here. Where only part of a group of claims is abandoned the charges against the group are deemed to apply to the remaining claims in the group as noted above, but when an entire group of claims is abandoned or an option to purchase claims is dropped, the expenditure becomes a loss and is written off to exploration account, less any salvage that may be realized. The claims may be sold or the option to purchase claims assigned to other parties, in which case the consideration may be cash, cash and securities issued by the purchaser, or by a company incorporated by the purchaser, or there may only be such securities given as consideration (usually common shares of a mining company). The proceeds so realized in cash are credited to the cost of the claim group in question and the remaining debit is transferred, if shares are received, to shares in mining companies as cost of the shares so received. If, however, the cash received exceeds the cost, the resulting credit is transferred to exploration account, representing a realized profit on the deal, the shares received being brought on the books at a nominal amount for record purposes.

Sometimes the practice is followed of valuing such shares upon receipt and recording them in the accounts at that value, the resulting credit being use to increase the credit transferred to exploration account. This practice is open to criticism on the grounds that a profit has not been realized and it probably originated to comply with a convention of the Taxation Division which permitted valuation of such securities to determine taxable profits, any profit or loss realized on the sale of such securities thereafter being deemed capital realization. However, in 1941 the Minister of National Revenue ruled that profits or losses realized by *bona fide* prospectors (including corporations) from the sale of claims or shares in mining companies received for claims were capital and did not constitute income within the terms of the Act.

### Transfers to a Mining Company

The most important disposition of mining claims is the transfer of the claims to a mining company incorporated for the purpose of developing and mining the mineral deposit. In general, the consideration for such transfer is the initial issue of the mining company's shares, though cash may also be involved. The accounting treatment is the same as that outlined above for sale to others. However, the consideration may also include the granting to the exploration company by the mining company options to purchase shares of the latter to provide the necessary money to bring the mine to production, thus following through the corporate structure the actual development of the mine. The exercise of such options results in the acquisition of additional shares of the mining company and the cost of such shares is charged directly to "shares in mining companies". Sometimes the exploration company may first secure an interest in the mining property through options to purchase shares in the mining company owning the claims. In principle this is no departure from the general policy of seeking and developing mines, but indicates only that the particular exploration company has come into the picture at a later phase than in the case of options to purchase claims or the acquisition of claims by staking. However, this type of transaction should not be confused with a similar arrangement by the mining company to sell shares and grant op-

tions on its capital stock to promoters, stock brokers or others who carry on the business of distribution of stock to the public. When the exploration company finances a mining company it usually acquires, as part of the agreement, the management of the company during the currency of the agreement.

### Financing the Mining Company

It is obvious that a company cannot continue to lay out money for exploration and the acquisition of properties and shares from its treasury indefinitely. Where it has an income from producing mines it may carry on quite successfully without other financing, but lacking this the company must either raise new capital through sale of its securities or liquidate a part of its holdings. Both practices are followed. If new capital is introduced, the effect is to dilute the interest of existing shareholders. (It is true that the introduction of cash should offset the diluting effect, but shares must be sold at what the market will bear which may discount heavily the potentialities of the company's holdings). To offset this, rights to subscribe may be issued to shareholders to enable them, if they so choose, to retain their relative equity in the company. No special accounting treatment is required except to note in the balance sheet the number of shares that are subject to the right to subscribe, the price at which the rights may be exercised and the date the rights expire.

As work proceeds on a mining property public interest may be generated by the prospect of mine-making possibilities so that a ready market develops for the shares of the mining company. The exploration company may take advantage of this market to replenish its cash position. It may sell all its "free" stock, relying on its options to purchase shares to retain an interest in the mine, or it may only sell its holdings down to a defined percentage interest in the company, or the holding may be a minority one which the company may liquidate entirely to secure its cash equivalent for use in other ventures it believes will be more profitable. It may be that the company, having held the shares until the mine is established, may decide that the realizable capital value in the market may be of more advantage as cash than the shares as a revenue source. Whatever the reason for selling, the proceeds are capital realization to the company and any excess over cost should be considered capital appreciation and transferred to the credit of exploration account. Likewise any loss is charged to that account.

As already mentioned, the search for mines is a hazardous undertaking and the outcome of a venture may not be determined until after expenditure of important amounts. Mines have been found in ground that has previously been abandoned and for this reason the accountant should hesitate to write off mining properties until they are actually abandoned by the company, even when he holds grave doubts regarding their value. He may quite properly provide a reserve to absorb any loss that may develop, and a "reserve for contingencies" or "reserve for mining ventures" is sometimes provided against the outcome of ventures underway. In my opinion, interest in such a reserve is more academic than practical. It simply labels a part of capital and surplus as being at risk in a business where capital and surplus are constantly being risked in highly speculative ventures.

### Statement of Earned Surplus of an Exploration Company

*Exhibit 2* (see p. 261) sets out a statement of earned surplus for an exploration company. It will be noted that in this example exploration account and income account are segregated. Published

## EXPLORATION COMPANY LIMITED
### STATEMENT OF EARNED SURPLUS
### EXPLORATION ACCOUNT

| | | | |
|---|---|---|---|
| Balance at debit December 31, 1948 | | | $ 125,000 |
| Excess of realization from sale, disposal or abandonment of securities and interests in mining properties and companies over direct expenditures thereon | | $ 438,500 | |
| Less Indirect Expenses:— | | | |
| Directors' fees | $ 1,000 | | |
| Executive salaries | 25,000 | | |
| General and administrative expenses | 40,000 | | |
| Legal fees | 5,000 | | |
| Depreciation | 2,500 | | |
| | $ 73,500 | | |
| Less allocated to income account | 10,000 | 63,500 | 375,000 |
| Balance at credit December 31, 1949 | | | $ 250,000 |

### INCOME ACCOUNT

| | | | |
|---|---|---|---|
| Balance at credit December 31, 1948 | | $ 110,000 | |
| Dividends and interest received from:— | | | |
| Marketable securities | $ 12,500 | | |
| Shares in mining companies | 500,000 | | |
| Interest on advances to subsidiary companies | 52,700 | | |
| | $ 565,200 | | |
| Less portion general and administrative expenses | 10,000 | | |
| Taxes paid on income | 15,200 | 540,000 | |
| | | $ 650,000 | |
| Dividends paid to shareholders during year | | 600,000 | |
| Balance at credit 31 Dec 1949 | | | 50,000 |
| | | | $ 300,000 |

*Exhibit 2*

accounts frequently combine the two in one profit and loss account. In my view the shareholder should know from year to year the results of exploration activities and the manner in which the income of the company from its holdings has been appropriated. It will be argued that the profits and losses realized on sales of mining properties and stocks are the results of carrying on the business of mining exploration and as such form part of the revenue account of the company. This view is acceptable only to the extent that a company is carrying on a business of trading in mining properties and securities, but cannot be so regarded when applied to the activities of an exploration company where the prime objective is the seeking and development of mines, and where the hope of the shareholders for regular dividends rests on the ability of the company to secure revenue from such mines. In the meantime, the transactions in exploration account are in the nature of capital adjustments, offsetting the loss on unsuccessful ventures against realization of capital appreciation on others that have been disposed of in whole or in part and will fluctuate widely from time to time.

It can be seen that in *Exhibit 2* the illustrative figures in the exploration account show that in the year under review the realizations converted the balance from a debit to a credit. Expenditure in the following year on a single venture that was a failure could easily absorb this credit. Such expenditures are in the "controllable" category, being dictated by the policy of the management and its opinion of the merits of each project. On the other hand, the income account reflects the earnings of the company's holdings which in turn will, to a large extent, dictate the company's dividend policy. Attention is directed to the administrative expenses which are written off currently and allocated between exploration account and income. As these illustrations are intended to depict an exploration company that qualifies under the definition of a "*bona fide* prospector" for income tax purposes referred to above, there is no income tax payable with respect to the exploration account transactions and, of course, in the income account only interest earned and dividends from non-Canadian companies would be subject to tax.

### Relationship of Exploration and Mining Companies

Reference has been made to the mining company as distinct from the exploration company. The operations of the two frequently intermingle, the exploration company sometimes expanding into actual mining operations, while most of the producing mining companies maintain exploration departments seeking to extend their existence beyond the life of their presently known mines.

In the foregoing paragraphs reference has been made to the incorporation of a mining company to own and develop a group of mineral claims. In practice it frequently happens that an underlying agreement with the original vendor of the mining claims may require the incorporation of a company to acquire the claims by a given date, with the result that the mining company frequently comes into being before the existence of an orebody has been proven. However, there is generally a discovery or some good reason for suspecting the existence of a mine on the property before the expense of incorporating a mining company is incurred or the complexity of ownership may warrant incorporation in order to make feasible the exploration and development of the property. In Ontario, as in most of the Provinces, provision is made in the *Companies Act* for the issue of shares of mining companies having a par value at a discount (e.g. *Ontario Companies Act,* Part XI). If the incorporation is under the Dominion *Com-*

*panies Act* no par shares are used. Authorized capital varies, but the 3,000,000 share company is popular. Having been incorporated, the new company enters into an agreement to purchase the mining property. The terms of such agreements vary widely and are often governed by underlying agreements between the exploration company and the original vendors. However, the following outline of a typical agreement will illustrate the basic features:—

> The exploration company agrees to sell and the mining company (having an authorized capital of 3,000,000 shares all unissued except 5 "incorporators'" shares) agrees to buy the mining property for consideration consisting of \$100,000, to be satisfied by the issue of 1,000,000 shares of its capital stock as fully paid and non-assessable (referred to as vendors' shares) and the giving of options to purchase 1,500,000 shares of the capital stock of the company as follows:
>
> 250,000 shares at 10c per share to be subscribed and paid for within 30 days
>
> 250,000 shares at 15c per share to be subscribed and paid for within 90 days
>
> 250,000 shares at 40c per share to be subscribed and paid for within 180 days
>
> 250,000 shares at 75c per share to be subscribed and paid for within one year
>
> 250,000 shares at \$1.00 per share to be subscribed and paid for within 18 months
>
> 250,000 shares at \$1.50 per share to be subscribed and paid for within two years.

### Various Agreements

The agreement will usually require that failure to exercise any option within the time stipulated will void the subsequent options. It will be seen that if exercised in full these options would provide a total of \$975,000 in cash and leave 499,995 shares in the treasury for any necessary financing in the future. The arrangement of the options would be designed so that if fully exercised they would produce the amount of cash likely to be needed to bring the property to production and, if required, construct a mill, and the timing of the progressive expiration of the options would be based on probable need for funds as work progressed. Quite often all the shares remaining in the treasury are made subject to option to the financing organization, but it is considered good practice to keep some shares available for additional financing without reorganization if additional funds are required.

The various security Acts of the Provinces require registration of companies selling shares to the public and the regulations usually require the escrowing of the shares issued to vendors. Release from escrow is usually in proportion to the amount of stock taken down for cash. Also, the financing organization, if it contemplates distributing stock to the public, may stipulate the escrowing of shares issued to vendors to ensure they will not have to compete with such stock in the market. When the financing is not provided by the vendor, the agreement cited above would become two agreements, one covering the sale of the claims to the mining company and a second agreement between the promoter and the mining company. This would grant options on much the same basis except that the promoter would make a firm commitment to purchase for cash a part of the shares and, in consideration of such undertaking, receive options to purchase the remainder of the shares as set out. Various arrangements may be dealt with in these agreements including provisions regarding management and representation on the board of directors. Providing for the acquisition of the property, the finances and the management, these agreements are the foundation of the new company and with the by-laws and minutes provide the starting point

for the accounts. If the agreement specifies the money value that the issue of vendors' shares represents, no particular problem is presented in recording the cost of the claims. If the shares have a par value, then the difference between the money amount and the par value is debited to "discount on capital stock". If the shares have no par value, then they should be allotted and issued fully paid at a price equivalent to the money's worth indicated in the agreement.

### The Role of the Accountant

Deals are made by men thinking in terms of shares and the indentures are drafted by lawyers concerned with reducing the agreements to exact language. Consequently, the accountant is frequently faced with recording the cost of the claims defined only in terms of shares, the value of which for the moment may be somewhat nebulous in character. He should, if possible, arrange for the directors by resolution to determine the valuation to be used; indeed, they must do this in the case of no par value stock when allotting the shares. In the case of par value stock, lacking such direction, the practice of bringing the claims on the books at the par value of the shares is permissible. An alternative method is to value the shares at the price of the first substantial issue for cash, treating the difference as discount on shares, the theory being that the first sale of the shares fixes the value of the property at that moment in terms of cash. The matter may be debated endlessly without reaching a conclusion.

Unlike coal mines and other "bedded" deposits where the size and life of the deposit can be determined within reasonable limits, the life of a "hard rock" metal mine cannot be precisely determined in advance. Instead, the company reports its ore reserves in terms of broken, developed and probable ore, the condition of the mine being indicated by the number of years' ore in sight for a given rate of extraction, and it is understood that these reserves represent only ore that development work has indicated as probably in place without limiting the possibility of future developments. The value at which the properties are shown on the books has no relation to its real value and as the life of the mine at any time is an unknown factor and since mining companies may pay dividends without regard to impairment of capital the practice of recording depletion in the accounts is seldom followed by a metalliferous mine. Under various Canadian tax laws percentage depletion allowance or something equivalent that is not based on the recorded value of the property is used in determining tax liability so that, at present, the taxation question does not affect the matter.

### The Balance Sheet of a Mining Company

*Exhibit 3* (see p. 265) illustrates how a mining company's balance sheet might appear shortly after being organized and before commencing to operate, while *Exhibit 4* (see p. 266) illustrates how the same company's balance sheet might look two years later when, its plant all installed, development work has been carried to the point where production is about to begin and with its entire capital issued. The cost of plant and equipment and the preproduction expenditures will be written off as depreciation in subsequent statements of operation, being part of the cost of extracting the ore and recovering the contained metal. The amounts recorded under mining properties will remain on the books until the mine is exhausted and as a measure of the value of the property is not more significant than the discount on capital stock. The two together merely balance the books between the amount of money or assets (other than mining properties)

paid in and the par or book value of the capital stock, the important factor being the number of shares or proportion of the shares of capital stock issued for the properties and the proportion sold for cash, for in these proportions will the profits realized be paid out. The original risk should yield a proportionately higher return on the money invested than that realized by the capital introduced after the risk has been reduced by expenditure of the first money.

Other accounting problems of the mining company up to the start of production are relatively simple, consisting principally of recording expenditure distinguished between plant and equipment, mine exploration and development, and general and administrative expenses, the latter two classifications being carried forward as a deferred charge under the general heading of preproduction expenses. A suitable analysis of the elements of these accounts should be maintained as they will later come under the close scrutiny of taxing authorities to determine permissible deductions for tax purposes.

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**MINING COMPANY LIMITED**

(No Personal Liability)

*(Incorporated under The Ontario Companies Act)*

BALANCE SHEET

As at 31 Dec 1947

**ASSETS**

| | | |
|---|---|---|
| Cash in bank | | $ 7,505 |
| Mining properties for which were issued 1,000,000 shares of capital stock at 10c per share | | 100,000 |
| Organization expenses | | 2,500 |
| *Discount on capital stock | | 990,000 |
| | | $1,100,005 |

**LIABILITIES**

| | | |
|---|---|---|
| Capital | | |
| Authorized 3,000,000 shares of $1 each whereof issued | | |
| For properties 1,000,000 shares | $1,000,000 | |
| For cash 100,005 shares | 100,005 | $1,100,005 |
| Note—Options are outstanding on: | | |
| 150,000 shares at 10c per share | | |
| 250,000 shares at 15c per share | | |
| 250,000 shares at 40c per share | | |
| 250,000 shares at 75c per share | | |
| 250,000 shares at $1.00 per share | | |
| 250,000 shares at $1.50 per share | | |
| 1,400,000 shares | | $1,100,005 |

* Some companies deduct discount on capital stock from the par value of the issued shares and extend the net amount only.

*Exhibit 3*

MINING COMPANY LIMITED

(No Personal Liability)

*(Incorporated under The Ontario Companies Act)*

BALANCE SHEET

As at 31 Dec 1949

ASSETS

| | |
|---|---|
| Cash in bank | $ 197,500 |
| Mining properties for which were issued 1,000,000 shares of capital stock at 10c per share | 100,000 |
| Plant and equipment at cost | 1,150,000 |
| Preproduction expenditure | 800,000 |
| Organization expense | 2,500 |
| *Discount on capital stock | 925,000 |
| | $3,175,000 |

LIABILITIES

| | | |
|---|---|---|
| Accounts payable and accrued charges | | $ 175,000 |
| Capital | | |
| Authorized 3,000,000 shares of $1 each whereof issued | | |
| For properties 1,000,000 shares | $1,000,000 | |
| For cash 2,000,000 shares | 2,000,000 | 3,000,000 |
| | | $3,175,000 |

* It will be noted by comparison with *Exhibit 3* that this is a net figure after deducting the premium realized on the sale of 749,995 shares at more than par.

*Exhibit 4*

# The Mining Company Balance Sheet

By Lancelot J. Smith, F.C.A.

**What information should be disclosed in the balance sheets of development companies and producing companies?**

IT IS the job of the chartered accountant who accepts the responsibility of shareholders' auditor to see that the financial operations of the mine are recorded in such a way that the shareholder will be properly informed.

The objectives of an examination of the balance sheet of a mining company necessarily will differ according to whether or not the company has reached the stage of profitable production. For this reason, I shall deal first with development companies and then with producing companies.

### 1. Development Companies

The first objective of the examination of the balance sheet of a company in the development stage is to determine its working capital. Is the company adequately financed to bring the company into production, and, if not, what means has it at its disposal to raise the necessary capital?

Lacking the training of an accountant, one might conclude that at least the difference between the current assets and the current liabilities is the amount which will be available to meet the expenditure required for further development, increasing stock of supplies and plant construction. An examination of the current assets, however, will show that certain adjustments must be made. Temporary investments in government bonds or other marketable securities will likely be included at cost which may be much more or less than the market value, usually indicated in an explanatory note. Furthermore, current assets may include inventories of mine supplies. It is desirable to exclude supplies on hand from current assets since amounts already expended for supplies are not available for spending for other purposes. Very often loans or advances to other companies or individuals are included as current assets. If so, what chance has the company of securing repayment in time to meet its own requirements?

The balance sheet will not show the amount the company expects to expend for development and other preproduction expenses, plant construction, equipment, supplies, etc., from the balance sheet date until the time when the mine gets into production and is able to finance out of operating revenues. This information

An address delivered to the 18th annual convention of the Prospectors and Developers Association on March 6, 1950

may be included in the manager's report. If not, the shareholders are certainly privileged to ask for it at the annual meeting.

Now, how do the resources of the company compare with these anticipated expenditures? Are they sufficient to meet all needs with a margin to provide a reasonable amount of operating working capital? If not, how can the company secure the necessary capital?

### Finance Capital Available

On the liabilities side of the balance sheet is recorded the capital stock position of the company. The difference between the number of shares authorized and the number issued is available for raising further capital, but not necessarily at or about the current market prices — particularly if all or any part of the unissued shares are under option. The number of shares under option and the option price should be disclosed either in the balance sheet itself or in a footnote to the balance sheet. Some indication should also be given as to when the option must be exercised to remain in good standing. If there are insufficient unissued shares to raise the capital required, it may be necessary to increase the authorized capital or otherwise reorganize the company. Any such operation will tend to decrease the proportionate equity of the present shareholders and it follows that the profits resulting from the venture will be divided among the holders of a greater number of shares.

Canadian banks have assisted in financing mines in the near production stage, but only where there was little or no risk. In most cases capital requirements must be met from the issue of new shares or from loans from sponsoring companies.

It is considered good practice for mining companies to show the number of shares issued for properties and the issued value of these shares separately from the number of shares issued for cash and the amount realized therefrom. This division permits the determination of the extent to which the shareholders have invested cash in the company and the average price paid for the shares.

It is also desirable to disclose, in the descriptive wording appearing on the assets side of the balance sheet against "mining claims" or "mining properties", the extent to which the cost was paid in cash and the extent to which it was satisfied by the issue of shares.

Another objective of an examination of the balance sheet of a development company is to determine whether or not the company appears to have good management. Included in the assets of the company is an item entitled "deferred development and administrative expenditures", "expenditures incurred prior to production", or some similar caption. It is the general practice to provide a detailed statement of development and other preproduction expenditures. An examination of this statement should show if the company is being economically managed or whether the resources of the company are being exhausted with excessive management fees, executive salaries, head office expenses or other administrative expenses. How do these expenditures compare with the amounts expended during the year for direct development and exploration expenses and additions to buildings and equipment? Such a comparison might be both interesting and revealing.

### 2. Producing Companies

The balance sheet of a producing Canadian mining company, particularly if it is a gold mine, differs from that of almost any other type of company in that it seldom takes into account the most important of the assets which it possesses — namely, its raw material (blocked out

or developed ore) and its work-in-progress (broken ore, mill solutions, etc.)

Usually included in the assets of a gold mine is an item, bullion on hand and in transit. Bullion in transit represents bars shipped to the mint prior to the balance sheet date valued at the amount subsequently received. Bullion on hand represents bullion produced during the period ended on the balance sheet date but not shipped to the mint until later. It is valued at the amount subsequently received or an estimate of the amount expected to be received. It is usual to consider precipitates removed from the presses on the balance sheet date and amalgam produced up to that date as bullion on hand even though not refined and the bars not poured until a day or two later.

In recent years some of the gold mines have made a practice of storing some or all of the gold production in the expectancy of an increase in the price of gold. In such cases the value stated in the balance sheet is estimated at the net recoverable value on the basis of weights and assays determined by company officials which will not be confirmed until the bars are shipped to the mint.

There are other cases where, because of the nature of the operation, milled concentrates are stored awaiting further treatment. In such cases the concentrates should be valued at cost of production provided that this is not greater than the value of the recoverable metals contained in the concentrates less the cost of further treatment. However, it would be unsound to value the concentrates if there was no means, existing or pending, of treating the concentrates, or if the roaster or treatment plant was not capable of treating the stored concentrates along with current production.

One new gold mine recently accumulated a large stockpile of concentrates during the period prior to the construction of its roaster plant. The portion of these concentrates remaining untreated at its year end is valued in its balance sheet at the "applicable portion of operating expenses and write-offs which is less than estimated net recoverable value". The profit arising from the bullion produced from the concentrates is thus carried into the year when the processing is completed.

### Untreated Ore

No Canadian gold mine has ever, to my knowledge, included the value of its blocked out or developed ore in its balance sheet (except to the extent the cost of its development is included in the unamortized portion of preproduction expenses) and only in rare instances has the value of broken ore been included in the balance sheet. It can be definitely said that it is not the general practice of Canadian mining companies to value either blocked out or broken ore in their balance sheets.

It has been the practice in Canada to include in the operating expenses of the year the cost of developing ore which may not be mined until some future year. Strictly speaking this may not be accurate accounting, but it is certainly practical accounting. According to the generally accepted definition, ore is metalliferous material which may be mined at a profit. It would be very unwise to value developed ore in a balance sheet when any one of (1) a downward adjustment in the price of gold, (2) an upward adjustment in the value of the Canadian dollar in relation to the U.S. dollar, or (3) increased operating expenses might turn what was once ore into waste rock. The same factors exist with regard to broken ore, but perhaps to a lesser degree, even if it is no higher in grade, since the cost of completing the process of extraction is more likely to be less than the value of the recoverable metals contained therein.

The general practice in Canada is a conservative one which has worked well. If it were to become the practice to include the value of developed ore, broken ore and mill solutions as assets in the balance sheet of Canadian mining companies, there would be considerable variance in opinion as to the proper basis of valuation and, no doubt, there would be greater opportunity for misrepresentation which a less scrupulous operator might find difficult to resist.

While it is not to be expected that the value of either developed ore or broken ore will be shown in the balance sheet, it is most essential that adequate figures as to tons and grade of the reserves of developed ore be given in the manager's report. You should compare this with the number of tons milled during the year. If the company has failed to maintain the ratio of developed ore to mill tonnage which it had at the beginning of the year, and there is no reassuring explanation, it may be a warning sign as to the future.

### Assistance Payments

A new asset which has appeared in the balance sheets of Canadian producing mining companies in the last year or two is the estimated amount receivable under the *Emergency Gold Mining Assistance Act.*

One or two companies have taken the position that the *Emergency Gold Mining Assistance Act* permits the Minister of Mines and Resources to pay assistance (cost-aid) under the terms of the Act, but it does not give the mines an enforceable claim to the assistance payments. These companies take into income only the amounts received during the year, and the amount expected to be received in respect of the period ending with the date of the balance sheet is omitted from the balance sheet (except as a footnote) and is taken into income of the following year when received.

Opposed to this, most companies have taken the view that the amount expected to be received is accrued revenue of the company which they can reasonably expect to receive and so have set it up as a current asset and have included it in income.

Now let us take a look at the operating statement.

### Depreciation

What policy has the company adopted with regard to providing for depreciation?

This is particularly important if the company is a new mine which is exempt from taxation for a period of three years from the date it is deemed to have come into production with a commercial milling unit. A new mine which chooses not to make provision for depreciation in the tax-exempt period is able to claim the depreciation which properly should have been provided for in the tax-exempt period as a deduction from the profits of future taxable years.

To digress for a moment, under an income tax regulation (s. 1100(4)) issued under order in council last December, where the taxpayer is a corporation the allowance for depreciation may not exceed the amount deducted in respect thereof in computing the income or profit for the taxation year shown on the financial statements presented to the shareholders. Some mining companies did have an understanding with the tax authorities that depreciation provided for in a tax-exempt period could be claimed for tax purposes in a succeeding taxable period, but the new regulations seem to have completely ignored this understanding.

Several devices have been suggested as to how this difficulty can be overcome, but in the final analysis they would all result in presenting an operating statement to the shareholders in which profits

would be reduced by depreciation which has already been provided for in a former tax-exempt year. It is difficult to understand why the Government insists upon restricting allowances for depreciation to the amounts shown in the current financial statements when by resorting to such an artifice — which to say the least is extremely bad accounting — the effect of the regulation can be circumvented.

### Condemnation of Regulation

I cannot condemn this regulation too strongly. In effect, a company which actually suffers a greater amount of depreciation than the allowance at the maximum rates contained in the regulations may end up by being allowed, over a period of years, amounts which aggregate less than what otherwise would have been allowed at the maximum rates contained in the regulations. This paradox may be explained in this way. A company whose plant depreciates more rapidly than the maximum rates allowed under the regulations should, if it is to present an honest operating statement to its shareholders, deduct the greater amount of depreciation which it has actually suffered. The amount provided for in excess of the maximum amount allowed by the regulations may not be deducted in that year; nor may it be deducted in any future year, since the amount allowable in the future year is restricted to the amount deducted in the financial statements of that future year. The amount written off, but not allowed for tax purposes, may not be claimed until such time as the company disposes of all the property in the class, and it is quite likely that a mining company will have no income in the year in which that event takes place.

In another case, a mining company may experience a major loss on the disposition of equipment, or other depreciable property, after taking into account the depreciation provided in respect of that asset. In this event, good accounting practice demands that the extraordinary loss be written off against the earnings of the year. Since all the assets in the class have not been disposed of, the regulations do not permit the loss to be claimed for income tax purposes in the year in which the asset is disposed of. While the regulations would appear to permit the company to claim allowances in future years at the rates contained in the regulations in respect of the asset which the company no longer has, the company is effectively barred from doing so since the amount allowable in any year is limited to the amount deducted from the profits of the company in the financial statements presented to the shareholders, and this amount will naturally not include any provision in respect of an asset already written off.

It would appear, therefore, that to study intelligently the operating results of a mining company, careful examination must be made of the changes in the depreciation policy of the company which have been put into effect as a result of the new capital cost allowance regulations.

### Expenses In Tax-Exempt Period

To get back to the new mine, the management can hardly be criticized for not making provision for depreciation in a tax-exempt year if it means a future saving of income tax. However, it would seem to be good practice to state the amount of depreciation which otherwise would have been provided, and you should take this into account when you look at the operating results.

Similarly a new mine may not have made any provision out of the year's earnings for amortizing preproduction expenses, and, if so, the net earnings have been overstated, or the net loss understated, to the extent of the amount

which should have been provided. Fortunately, the new regulations allow a mine to deduct from its taxable profits of a year any amount up to 25% of its preproduction expenses, until such time as 100% of the preproduction expenses have been deducted, regardless of the amount written off in the books or shown in the financial statements of the company. There is, therefore, no good reason why a company in the exemption period should not make proper provision in its operating statement for the amortization of preproduction expenses regardless of whether or not it is a tax-exempt year.

It would seem to be good practice to make note, in the operating statement of a new mine, of the amount of Dominion income tax which it would have been required to pay on its profits if it had not been exempt from taxation. If this is done, the shareholder is given a better idea of the net profits which might be expected in future taxable years.

In other cases, even though the mine made a profit in a year when it was not tax exempt, it may not have been necessary to make any provision for Dominion income tax because of the right, for income tax purposes, to deduct from the profits of the current year losses suffered in past years. This is another instance where good practice would seem to demand that the Dominion income tax which otherwise would have been payable be noted in the operating statement.

It is the duty of the professional accountant who undertakes the function of shareholders' auditor to see that the balance sheet and operating statement are sufficiently informative to allow the reader to determine the treatment given to all these matters which are peculiar to a mining operation. If the auditor takes exception to the treatment given, he is expected to state clearly the exception in his report to the shareholders and its effect on the financial statements.

# Diminishing Balance Depreciation Under the Income Tax Act

By A. W. Gilmour, C.A., F.C.I.S.

**An analysis of the new capital cost allowances under the Income Tax Act**

AS ACCOUNTING students we are told that the reasons for setting up a provision for depreciation on the books of account are twofold: first so that the original cost of the asset can be charged against the cost of the articles produced during the useful life of the asset, and second so that profits can be segregated from the surplus account in order that the funds represented thereby would not be distributed to the shareholders. Unfortunately, it is seldom that these funds are in the form of readily available current assets when the time comes to replace the assets. As conservative accountants we have always limited our thinking to replacing the book cost of the original assets, and usually have refused to consider the interesting problems arising out of the attempt to acquire funds to replace worn-out assets at a time when replacement costs are inflated many times beyond the costs of the earlier assets.

### Departmental Rules

In the years subsequent to 1917, the Income Tax Department gradually built up a complex body of rules limiting the amount of depreciation which could be deducted from taxable income. Many of these rules were fixed upon largely by a trial and error system, but by the end of 1948 we had a system established which was generally understood by both taxpayer and the Tax Department. Probably the most striking feature of the old system was that it followed very closely the established principles of good accounting practice to such an extent that most taxpayers and accountants simply set up their records to conform to these rules, and seldom gave a thought to whether the maximum rates of depreciation established for tax purposes bore any reasonable relationship to the rates required for their own business.

One thing is certain: the fact that the Income Tax Department allowed depreciation as a deduction from taxable income settled for once and all the question whether it was necessary to provide for depreciation as a cost of production. Many of the older text books on accountancy contained long chapters setting out the reasons why depreciation constituted a cost of operation but little regard is necessary to this argument today.

However, under the new procedure

An address to the Quebec Students' Society, Montreal, March 1950

which applies to the profits of 1949 and subsequent years, we find that we are no longer talking about depreciation as accountants have understood the term for many years, but instead we have an artificial creation designed to define and limit an amount which may be deducted from taxable income. So different is this deduction from what we have understood as depreciation that perhaps we would be well advised to refer to the deduction as "the portion of the capital cost deductible from income" even though this be a most inconvenient name.

### Departure From Good Accounting

However, the point which I wish to make and emphasize is that the new regulations concerning deduction of capital cost are purely taxation regulations and in many instances have departed a long way from what most of us consider to be good accounting treatment of depreciation. Accordingly, care must be taken to see that we no longer blindly set up our accounting records and financial statements in accordance with tax regulations. Instead we must prepare our accounts in accordance with good accounting practice, and thereafter prepare schedules to be attached to tax returns in which we claim the allowance for capital cost in accordance with the new regulations. I wish to repeat this point again, for I have found that many taxpayers have become so accustomed to setting up their accounts in accordance with income tax rulings that they are continuing to do so in respect of the new procedure, with the result that in a few years their financial records will bear no relationship to actual facts.

In deciding upon the new procedure, it was apparently the desire of the legislators and their advisers to provide for two main objects:

(1) to permit losses realized on the sale of depreciable assets to be deductible from taxable income, and as a complement to this to recapture excess depreciation upon sale, and

(2) to simplify the work of checking the calculation of the portion of capital cost allowed as a deduction from taxable income.

It must be admitted that these two purposes have been achieved. Whether the same objectives might not equally well have been achieved through much less drastic steps is a matter which is open to discussion.

The best way of bringing out the highlights of the new regulations is to compare them with the old procedure, with which most of us are more or less familiar.

### Discretion

For many years the old *Income War Tax Act* and the procedure thereunder were subject to strong criticism on the grounds that many allowances were only made by virtue of the exercise of ministerial discretion, and many of us felt that perhaps our competitor was getting a better deal than we were.

The new *Income Tax Act* and the regulations published thereunder are open for all to read. All we have to do is read, and re-read, and perhaps understanding will come gently upon us in due course.

Notwithstanding the secrecy surrounding rulings under the old *Income War Tax Act,* everyone seemed to know, and occasionally to understand, all the rulings affecting depreciation, and the occasions on which certain taxpayers were granted special treatment for depreciation purposes were extremely rare. However, today it is undoubtedly an advantage that all regulations are freely available.

## Capital Profits and Losses and Recapture of Depreciation

Canadian tax legislation has undoubtedly taken a long stride forward in recognizing that a loss incurred upon the sale of a fixed asset used in the business is normally taken to assist in the earning of the income of the business, and that it is only equitable to permit the deduction of such losses from taxable income.

Under the old *Income War Tax Act,* where a taxpayer sold an asset for more or less than the original cost less depreciation accumulated thereon, the resultant profit or loss was considered to be an item which did not affect taxable income. In passing, I might mention that an exception was made in the case of a profit or loss on the sale of rolling stock, but this was a minor exception made because of the difficulty of determining what was a reasonable rate of depreciation on automobiles.

Even though the rates of depreciation allowed were generous and undoubtedly made some allowance for obsolescence, it cannot be denied that the possibility of facing a capital loss which could not be deducted from taxable income resulted in many companies continuing to operate assets long after their useful life had expired, and this must have had a cumulative effect on the economic development of this country. It is equally probable that many companies practised a mild form of tax evasion in that they kept assets on their books and continued to claim depreciation thereon long after the assets had been dismantled and stored away or scrapped.

Under the new procedure all assets of certain designated classes are considered to form separate pools. The cost of new additions are added to this pool, while the proceeds of sales are simply credited or deducted from the pool and the allowance for capital cost is calculated upon the balance of the pool year after year

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without regard to whether or not all the assets continue to exist. This means that where a company disposes of assets at a loss, this loss disappears in the pool and the company continues to claim a deduction from taxable income upon assets which have long since ceased to exist. Similarly, where a company disposes of assets at a profit the proceeds are credited to the pool and so reduce the balance remaining at the end of a year, and this in turn will reduce the portion of the capital cost which can be deducted from taxable income. I may add that if an asset is sold for more than original cost, or, in the case of pre-1949 assets, is sold for more than original cost less depreciation accumulated to the end of 1948, such excess is considered to be a special profit and may be eliminated from the pool.

In the case of a continuing concern which is steadily disposing of worn-out assets and replacing them with new ones, the pools will never be emptied so that the balance upon which the portion of capital cost allowed as a deduction from taxable income is computed will bear little resemblance to the assets shown on the balance sheet. Eventually, all the as-

sets in the pool will be disposed of and when this occurs the balance of cost in the pool will be allowed as a deduction from taxable income in the year of sale. On rare occasions it may happen that the proceeds of sales exceed the cost of assets remaining in the pool, and should this occur the credit balance will be added to taxable income in the year in which this occurs.

It is in this respect that the new regulations depart from good accounting principles. As accountants we claim that a capital profit or loss arises when an asset is sold for an amount greater or less than the depreciated book value, and where this occurs we remove the asset value, the accumulated depreciation from the balance sheet, and transfer the resultant profit or loss to a capital surplus account. Thus, as the years go by the balance sheet and the tax schedules will grow farther and farther apart.

Summing up the foregoing under the new regulations:

(1) Capital profits are considered to be the excess of sales proceeds over original cost or, in the case of assets acquired before 1949, the excess of the sales proceeds over original cost less depreciation accumulated to the end of 1948. These so-called capital profits may be eliminated from the pool in the year in which they occur.

(2) Where the sales proceeds are equal to or less than the original cost of the assets, the proceeds are credited to the pool and the resultant profit or loss reduces or increases future allowances for capital cost which can be deducted from taxable income.

(3) The balance of the pool account is only allowed as a charge against taxable income in a year in which all the assets in the pool are sold and not replaced prior to the end of the year. Conversely, if sales proceeds in the year, after eliminating capital gains, exceed the cost of assets in the pool, so as to produce a credit balance, this credit is added to taxable income for such year.

For the ordinary business, with the possible exception of buildings and motor cars, it will rarely happen that all the assets of a group, such as machinery, will be sold and not replaced by the end of the year, so that the balance of the pool carries on indefinitely.

### Diminishing Balance Depreciation

Under the old procedure established under the *Income War Tax Act,* depreciation was almost invariably computed on the straight-line method. That is, the annual charge of 5% or 10% was calculated on the original cost, so that the cost of the asset was spread evenly over its life. There were a few cases where taxpayers calculated depreciation on the reducing balance basis but these were very few in number.

As a result of the new regulations, all taxpayers must now calculate the portion of capital cost which can be deducted from taxable income upon the diminishing balance method. That is, the deduction claimed at the end of one year must be deducted from the cost of the pool, and thus the balance upon which the deduction may be claimed in the following year is reduced.

Because of this change, if a taxpayer is to be able to write off the cost of his assets against taxable income in anything like the same period of time, the maximum rates of depreciation must be from two to three times the rates allowed under the old straight-line method. On the whole, the new rates have doubled the rates previously allowed.

The major effect of these new rates will be to permit of a sharply increased amount which can be claimed in respect of the cost of a new asset for the first three to four years, and thereafter the annual amount will drop below that per-

mitted under the straight-line method, and this will continue indefinitely thereafter.

So far as taxpayers are concerned, because the rates have generally been doubled, the new rates will be of immediate financial benefit to them, if the assets they possessed at the end of 1948 have not been depreciated to the extent of 50% of original cost. On the other hand, if these assets have been more than 50% depreciated, there will be a reduction in the amount which can be claimed as a deduction from taxable income in respect of these assets.

To lighten this effect, in respect of the 1949 fiscal year only, taxpayers may compute the deduction from taxable income on the basis of the old regulations instead of on the new diminishing balance method providing the old rates produce a greater deduction. It should be pointed out that this choice must apply to all classes of assets of the taxpayer, and that the other features of the new regulations, such as crediting sales proceeds to the cost of assets, apply even though the taxpayer elects to use the old rates for the 1949 fiscal year.

### Recording on Financial Records

Under the old depreciation regulations, certain types of taxpayers, such as corporations and individuals carrying on a business, could not claim a deduction from taxable income for depreciation unless they set up the amount on their books of account. In practice, it frequently happened that a corporation depreciated its assets more rapidly than did the maximum rates allowed by the Department. However, even after the assets had been fully written off the books of account, the Department continued to allow depreciation until the cost of the asset was fully written off at the rates recognized by them.

The new regulations, however, provide that a corporation, as distinct from an individual, may not claim a deduction from taxable income in respect of capital cost which is in excess of the amount deducted on the financial statements presented to the shareholders in the taxation year. While this provision at first glance seems simply to repeat the old regulations, closer examination discloses that it imposes a requirement which may work a very considerable hardship on taxpayers in future years.

As already pointed out, the new regulations require that sales proceeds be credited to the various pools of assets, and no attempt is made to eliminate profits or losses on these sales, with the exception of a very restricted class of profits. As a result, the capital cost of assets on which the deduction may be computed will gradually drift farther and farther apart from the book value of assets upon which depreciation is claimed for purposes of the financial statements. While the difference will usually not be very great in 1949 and 1950, it will tend to grow wider each year. However, this requirement attempts to link these two diverging factors in a manner which is just about unworkable.

### Accelerated Depreciation and Minimum Requirements

Provision existed under the old regulations whereby a taxpayer who was operating his machinery for periods beyond the normal working shift could claim an acceleration of normal depreciation for these extra periods. A limitation was placed upon the extra amount which could be claimed in that if the operating time was doubled, the normal rate of depreciation could be increased by 50% while if the operating time was tripled, the depreciation rates could be increased by 100% for these periods of accelerated operations.

The new regulations do not provide for any such acceleration of the rates at which capital cost may be claimed as a deduction from taxable income.

The old regulations also contained a clause whereby a taxpayer could not claim depreciation at a rate in excess of the maximum rates of depreciation, but neither could he claim less than 50% of the rate he usually provided. This requirement was a relic of the days when business losses incurred in one year could not be applied in reduction of profits earned in other years, and consequently it was in the taxpayer's interest to claim no depreciation in a year in which an operating loss was incurred or only a small profit was earned. With the adoption of the principle of applying business losses in reduction of profits earned in other years, the need for this 50% requirement was lessened.

The new regulations simply place a maximum upon the portion of capital cost which may be deducted from taxable income in any one year, and by inference permit the taxpayer to claim as little as he desires. As already pointed out, the *Income Tax Act* permits the application of business losses against profits earned in other years, so that it may not be to the taxpayer's benefit to reduce the amount claimed in a year of loss, unless it appears to him that he is entering a cycle of loss years which may extend beyond the period in which he is permitted to offset business losses against profits.

### Accounting Records

The underlying principle of the previous system of depreciation was that whenever possible assets should be depreciated separately, and the ideal system was that in which a separate account was maintained for each asset, on which was recorded the cost and the accumulated depreciation. Failing this, taxpayers were required to segregate their assets into separate classes according to the depreciation rates applicable and further to segregate these classes according to the year of purchase. If a taxpayer was unable or unwilling to provide these records, he was penalized in that when accumulated depreciation reserves totalled 80% of the cost of the asset, the reserve was applied in reduction of the cost and thereafter depreciation could be claimed only on the remaining 20%.

The revised regulations require the maintenance of only the most elementary type of records to justify the deduction of capital cost from taxable income. Actually, all that is required is one account for each of the various classes of assets established by the regulations, which in most cases will only number four or five, such as buildings, machinery and automobiles. Each account need only show:

| | |
|---|---|
| Balance at beginning of year | xx |
| Additions thereto | xx |
| | xx |
| *Less*: Proceeds of sales | xx |
| | xx |
| *Less*: Deduction in respect of capital cost | xx |
| Balance at close of year | xx |

So far as the new regulations are concerned, no record need be kept of the amount of capital cost written off individual assets, nor, with the elementary records required, will this be easy to ascertain. The only time that reference need be made to the cost of an asset will be where an asset purchased in 1949 and subsequent years is sold for more than its original cost, or where an asset purchased prior to 1949 is sold for more than original cost, less accumulated depreciation to the end of 1948. In these

two cases the excess may be eliminated from the pool.

However, I must emphasize that while these records may be adequate for tax purposes, they are not adequate for financial accounting purposes, and as accountants we will have to maintain proper records in which the original cost and accumulated depreciation are shown so that capital profits or losses incurred on sale or disposition may be determined and shown correctly on the balance sheet. Then we will have to prepare separate schedules to be attached to the tax returns in which the allowance is computed in accordance with the regulations.

As stated previously, considerable difficulty in this respect is going to be encountered if the Government persists in limiting the deduction in respect of capital cost to the amount shown in the financial statements for the year. If they persist, we will probably have eventually to set up a fictitious account on the balance sheet entitled "deferred depreciation" and write off a portion each year.

### Commencement Date of Depreciation

The general principle of the old regulations was that depreciation could only be claimed on an asset from the date it was set up and commenced operations. That is, if an asset was purchased in the last month of a fiscal year, generally depreciation could be claimed only for that one month. In practice, where the annual additions to assets were small, taxpayers were frequently permitted to claim depreciation for the full year upon the balance of cost shown at the end of the year, without regard to the date within the year on which the asset was purchased.

With the revised regulations the taxpayer is permitted to calculate the deduction from taxable income upon the balance of the pool of assets at the end of the year, and need make no allowance for the date within the year at which assets were purchased or sold.

Where the fiscal period of a taxpayer is less than 365 days, however, the allowance for capital cost is reduced to the amount that the number of days in the fiscal period is of 365.

### Cost of Assets

The determination of the cost of the asset which may be written off against taxable income is bound to give rise to difficulties under the numerous circumstances which are encountered in practice.

The old regulations made no attempt to define what constituted cost; and taxpayer and Tax Department were left to settle the matter between themselves.

The new regulations have attempted to set out, in some considerable detail, what the cost of the asset will be under varying circumstances. These may be summarized as,—

(1) Where the assets were acquired by the taxpayer prior to the 1949 fiscal year, the capital cost is stated to be the actual cost to the taxpayer, minus accumulated depreciation to the end of the 1948 fiscal year. This accumulated depreciation will include reserves established at the beginning of 1917, and normal depreciation accumulated in intervening years to the end of 1948. Any special or double depreciation accumulated in these years in addition to normal depreciation is also deducted, but is treated in a different manner which is referred to later.

(2) Where the asset is acquired in 1949 and subsequent years, capital cost presumably means actual cost.

(3) Where the asset is acquired by gift or inheritance, its capital cost is its fair market value at the time of acquisition.

(4) Where an asset has been used for

one purpose by a taxpayer (such as personal use) and then is changed and used for another purpose (such as earning income) it shall be deemed to have been acquired or disposed of for its fair market value at the time of the change.

(5) Where a taxpayer is entitled to receive a subsidy from a public body in respect of the acquisition of property, the subsidy must be deducted from the capital cost.

(6) It is interesting to note that s. 18 of the *Income Tax Act* provides that where a moveable property is sold under a hire purchase agreement whereby title passes on the satisfaction of certain conditions, title is considered to pass to the purchaser for purposes of computing the capital cost at the value mentioned in the contract. (The 1950 budget resolutions have extended this treatment to immoveable assets also).

It may also be mentioned that the following types of assets are not considered to be assets for purposes of computing the deduction of capital cost:

(1) amounts which can be claimed as an expense in computing income;
(2) assets which form part of the inventory of stock-in-trade;
(3) assets which were not acquired for purposes of gaining income;
(4) land;
(5) scientific research expenditures of a capital nature. (These can be written off over a three-year period.);
(6) certain types of assets of coal mines and certain new ships, which are granted special rates of depreciation;
(7) assets of farmers and fishermen unless the farmer or fisherman desires to be subject to the new regulations;
(8) assets of non-residents located outside of Canada;
(9) leasehold expenditures of a temporary nature which may be written off over the life of the lease.

### Sales Proceeds

In view of the fact that profits or losses on sales of assets were not taken into account in computing taxable income under the *Income War Tax Act,* subject to certain exceptions in the case of special depreciation and delivery equipment, no definition of what constituted a sale was contained in the old regulations.

In the new regulations, the definition of sales proceeds is set out at length, and includes:

(a) the actual proceeds of property sold;
(b) compensation received for property damaged, destroyed or expropriated;
(c) insurance received in respect of loss or destruction of property, which it is presumed refers to total loss or destruction;
(d) insurance received in respect of damage to property less amounts expended within a reasonable time to repair the damage;
(e) the fair market value of property given away by gift.

It should be noted that property disposed of on death is not considered to have been sold for purposes of the regulations.

### Special Depreciation

Over the years during which the old regulations were in use, the following types of depreciation were allowed as a deduction from taxable income:

(a) normal and accelerated depreciation;
(b) special depreciation granted by certificate of the War Contracts Depreciation Board, or by other authority;
(c) double depreciation granted upon certain assets by virtue of a certificate issued by the Minister of Reconstruction and Supply.

In the case of the special depreciation, the *Income War Tax Act* provided that on the sale of an immoveable asset, other than machinery or equipment on which special depreciation had been

granted, some portion of the special depreciation would have to be added back to the taxable income of the years in which the special depreciation was originally claimed.

A similar provision existed in respect of the sale of moveable assets which had received an allowance of double depreciation.

The manner of calculating the special and double depreciation to be recaptured under the old Act was extremely complicated. Generally speaking, the underlying theory was that if the asset was sold for more than the depreciated cost, the excess was subject to recapture to the extent of the special or double depreciation originally allowed.

The new regulations make provision only for double depreciation, and they provide that where the taxpayer possesses an asset eligible for an allowance of double depreciation, he may claim the following deduction from taxable income in 1949 and subsequent years:

(a) the normal allowance in respect of capital cost, based upon the actual capital cost of the asset, less accumulated normal depreciation to the end of 1948, calculated in the usual manner, plus

(b) one-half of the amount of depreciation on these assets which would have been allowed, had the provisions of sec. 6(1)(n)(ii) of the *Income War Tax Act* remained in force.

Thus if a taxpayer at the beginning of 1949 possessed an asset eligible for double depreciation, which originally had cost $100, and against which there had accumulated to the end of 1948 normal depreciation of $30 and double depreciation of $30, he would be entitled to claim an allowance in respect of capital cost in 1949 of:

| | |
|---|---|
| 20% of $70, being original cost of $100, less normal depreciation accumulated of $30 | $14 |
| 10% of $100, being one-half of the amount which could have been claimed had the provisions of the *Income War Tax Act* remained in force | 10 |
| | $24 |

It is presumed that this additional allowance will continue to be granted until the amount of depreciation written off these assets equals 80% of original cost, which is in accordance with the provisions of order in council P.C. 8640 of November 10, 1944, which originally provided for the allowance of double depreciation.

The new regulations have also changed the manner in which special and double depreciation is recaptured, and replaced it by a much simpler method. They merely state that any special or double depreciation granted up to the end of 1948 shall be regarded as having been allowed under the new regulations and so is subject to the recapture provisions of the new regulations.

Thus in the above illustration of an asset which had originally cost $100 and which had been reduced by normal depreciation of $30 and double depreciation of $30 to the end of 1948, the capital cost for purposes of recapture would be $70, so that if the asset were subsequently sold for any amount up to $70, the full proceeds would be credited to the cost of the asset. Thus the double depreciation of $30 allowed to the end of 1948 plus any subsequent allowances would all be subject to recapture.

### Transactions Between Related Taxpayers

There have always been restrictions imposed upon the amount of depreciation which may be claimed upon an asset which is being transferred between per-

sons who have common financial interests.

Section 6(1)(n) of the *Income War Tax Act* provided that the total depreciation allowance upon an asset being sold between companies subject to a common control could not exceed the original cost to the group, no matter how many times the asset was transferred within the group, nor how much the price was inflated by such transfers. Similarly, the old regulations provided that where an original owner sold an asset to a new person in which he was also interested at an inflated cost, the inflated figure would not be recognized for depreciation purposes unless new capital in excess 50% of the original capital was introduced.

The new regulations carry on these same general principles, but do so by singling out for special treatment assets acquired by transactions between persons who are not dealing at arms length. Section 127(5) of the *Income Tax Act* states that transactions between the following types of persons are not considered to be at arms length:

(a) transactions between a corporation and persons who directly or indirectly control it;
(b) transactions between corporations which are directly or indirectly controlled by the same person;
(c) transactions between persons connected by blood relationship, marriage or adoption.

Where an asset is acquired in 1949 and subsequent years as the result of a transaction which was not at arms length, the capital cost to the present owner cannot exceed that of the original owner. That is, if an asset originally cost $100 and was subsequently depreciated to $60 and thereafter sold by the original owner to a relative for $110, the original owner would have to pay tax on the recaptured amount of $40 and would be considered to have earned a non-taxable profit of $10. The new owner would be considered to have acquired the asset for $100 and would never be allowed any reduction in respect of the $10.

If the same asset which had been depreciated to $60 were sold to a relative for $40, the original owner would be allowed the loss of $20, so that he will have received a total allowance of $60. The new owner will be considered to have acquired the asset for $100, and to have been allowed $60, so that the whole $60 may be subject to recapture in his hands should he ever sell the asset.

Where the asset was acquired prior to 1949 as the result of transactions between persons not dealing at arms length, the capital cost to the present owner is restricted to the lesser of (1) the actual cost to the present owner, or (2) the actual cost to the original owner less depreciation accumulated thereon.

Thus if an asset originally cost $100 and had been depreciated to $70, after which it was sold to a relative for $50, the original owner would have suffered a capital loss of $20. As the cost to the present owner of $50 is less than the original cost of $100 less depreciation of $30, the figure of $50 is considered to be the capital cost.

On the other hand, had the asset been sold for $80, the depreciated cost to the original owner of $70 would be considered to be the capital cost to the present owner.

### Change in Use of Asset

The regulations issued under the old *Income War Tax Act* never made adequate provision to cover the situation which arose when an asset which had not previously been used to earn income began to be used to earn income.

The new regulations make specific provision for the change in the use to which

an asset is put by providing that where a change takes place, the asset shall be deemed to have been acquired or disposed of for its fair market value at the time of the change. This regulation, coupled with the provisions for the recapture of depreciation, may result in some quite drastic consequences for taxpayers, particularly individuals, and should be considered carefully.

As an illustration, a man might have owned a house for many years in which he lived, and then rented it in order to produce income. He would be assumed to have acquired it at its fair market value at the date he rented it, and accordingly could claim a deduction for capital cost from his taxable income based on this fair market value. If at some future date he ceased to rent the house, he would be considered to have disposed of it for its then fair market value. Had the value decreased in the interval he would receive an additional allowance. On the other hand, if the value had increased, he might find himself subject to tax on the increase in the value, although limited to the portion of capital cost allowed as a deduction from income.

Another illustration might be that of a businessman who carried on two separate businesses and who had previously used an asset in one business and then transferred it to the second. Here again he would be considered to have disposed of the asset in the one business for its fair market value and to have reacquired it at the same value in the second. If the fair market value was different to its capital cost, he might well find himself subject to an immediate recapture of capital cost previously allowed, and only be able to recoup this over a period of later years.

## Conclusion

The new regulations seem somewhat complicated, and it will be some time before we become fully familiar with them. However, eliminating those provisions which are needed to cover the special or borderline cases, we find that the general regulations which apply to the ordinary day-to-day transaction are extremely simple in character and application.

As I have emphasized before, these new regulations are solely tax regulations, and care must be taken to see that we continue to keep accounts and prepare financial statements in accordance with accepted accounting principles. However, a definite advance has been made in that the principle has been accepted that capital losses may ultimately be deducted from taxable income, although as accountants we may regret that the theory of reducing balance depreciation has been forced on us for tax purposes.

## Recent Books

**Design of Accounts (3rd ed.), by F. Sewell Bray and H. Basil Sheasby; published for the Incorporated Accountants Research Committee by Oxford University Press, Toronto, pp. 274 and index; price $4**

In 1937 the Research Committee of the Society of Incorporated Accountants and Auditors of the United Kingdom commenced the publication of a series of forms of accounting statements for various special industries. In 1943 these and other forms were published under the title "Design of Accounts", a book which has met with notable success in the United Kingdom.

This third edition sets forth in convenient form the information called for by the *Companies Act,* 1948 and correlates with it the recommendations of the Institute of Chartered Accountants in England and Wales. The book is, therefore, a very useful work of reference for anyone who is required to prepare accounts to conform with the new *Companies Act* of the United Kingdom. It will also be interesting to others who are interested in specialized forms of accounts as there are 26 specimen forms of trading and profit and loss accounts for different undertakings.

The Canadian reader will note that the double account balance sheet which was used in England for so long has disappeared in favour of the single form balance sheet commonly used on this continent. He will observe that there are still several differences in the presentation. For instance, the liabilities side of the balance sheet invariably starts with capital and surplus and the assets side of the balance sheet with fixed assets, and the statements of profit and loss account are almost invariably in the account rather than narrative form with which we are more familiar. In the latter connection the authors state, "It is sometimes urged that accounts in 'narration' are more readily intelligible than the traditional double-sided statements. It may be that a profit and loss account in this form has the advantage of showing revenue figures in logical order, though it is to be doubted whether there is anything to be gained by stating a balance sheet in narrative form." The streamlined balance sheet is apparently getting a cool reception in the United Kingdom.

This is a useful work of reference in any accountant's library. In addition to the various forms it includes all "Recommendations on Accounting Principles" by the Council of the Institute of Chartered Accountants in England and Wales up to and including Recommendation 13 dealing with fixed assets and depreciation in accountants' reports and prospectuses.

J. R. M. WILSON, F.C.A.

**Internal Auditing in Industry, edited by Victor Z. Brink and Bradford Cadmus; published by The Institute of Internal Auditors, New York; pp. 404; $5.**

This publication presents the results of a two-year project of the Research Committee of the Institute of Internal Auditors and involves the efforts of a variety of experts. Its outstanding

feature is that it gives a description of the activities and the controls necessary to the 20 industries dealt with.

In an introductory chapter on general elements of control a useful summary is given of the essential principle that no individual may operate his assigned portion of the business without co-ordinating it with the remainder of the business.

The internal auditor's duties are presented as a function of management and his importance is emphasized by linking him to "top management". The reiteration of the qualifying term "Internal" suggests an intention to distinguish an internal auditor from an auditor, but this suggestion fades before such statements as:

> The internal auditor's worth depends not only on his theoretical knowledge of audit practice, but on his familiarity with the industry's operational and managerial practices. The successful auditor must possess that knowledge of the industry which can be gained only through practical experience in the field.

Hence the internal auditor is not only an auditor but an improved auditor.

The weaving of the auditing pattern into the fabric of control is an excellent achievement of the editors of this book.

JAS. TURNER, C.A.

## Obituary

### Lawson A. Ogg

The Institute of Chartered Accountants of Manitoba announces with deep regret the sudden death of Mr. Lawson A. Ogg of Winnipeg.

Mr. Ogg was giving assistance to a flood victim in Elm Park who was attempting to reinforce a door holding back several feet of water from entering the basement of his home. When the door collapsed suddenly, Mr. Ogg was caught in the current of water and swept to his death.

Mr. Ogg was admitted to the Manitoba Institute in 1949 and at the time of his death was practising his profession in Winnipeg.

To those who are bereaved by his death the members of the Institute extend their sincere sympathy.

## Professional Notes

### ONTARIO

Richardson, Elwell, Parish & Co., Chartered Accountants, and McDonald, Currie & Co., Chartered Accountants, announce that they have amalgamated their practices and that hereafter the combined practices will be carried on under the firm name of McDonald, Currie & Co., Canadian Bank of Commerce Chambers, Hamilton, Ontario, with Mr. Herbert S. Elwell, C.A., and Mr. A. William Parish, C.A., as resident partners. Mr. Sinclair G. Richardson, F.C.A., will be associated with the firm as a consultant.

* * *

McDonald, Currie & Co., Chartered Accountants, announce the admission to partnership of Mr. Herbert Hartley, C.A., and Mr. J. Forbes Knight, C.A., of Toronto.

### Western Ontario Chartered Accountants' Club

Professor James Taylor, C.A., of the School of Business Administration of the University of Western Ontario, spoke on "Future Accounting" at a meeting of the Western Ontario Chartered Accountants' Club held in London on April 28. The chairman was Mr. Frank Campbell, C.A., and Mr. Ken Lemon, C.A. thanked the guest speaker.

* * *

N. Perlmutter & Co., Chartered Accountants, announce that henceforth their practice will be conducted under the firm name of Perlmutter, Orenstein & Co., Chartered Accountants, with offices at 220 Bay St., Toronto.

* * *

Messrs. H. J. Welch, F.C.A., H. G. Hinton, C.A., and C. R. Welch, C.A., announce the formation of a partnership for the practice of their profession under the firm name of Welch, Hinton & Welch, Chartered Accountants, with offices at 200 Bay St., Toronto.

* * *

### Ontario Students' Association Meeting

The Chartered Accountants Students' Association of Ontario held its annual meeting in the auditorium of the 48th Highlanders Memorial Hall on Monday, May 15, Approximately 200 members were present, including representatives from the Ottawa, London and Kingston branches. Mr. Guy W. Smith, F.C.A., president of the Ontario Institute, addressed the meeting.

The following officers were elected: J. S. McFadden, *president*; Moore I. Jackson, C.A., *vice-president;* J. K. Walker, *secretary;* R. G. Appleton, *treasurer;* Members of Council for the coming year are T. L. Innes, R. B. Mailling, J. A. McClelland, D. C. Stewart, C.A., Peter Stewart and W. B. Stapells.

## BRITISH COLUMBIA

Mr. Frank N. Maas, C.A. announces the opening of an office for the practice of his profession at 573 Homer St., Vancouver.

## NEW BRUNSWICK

### Moncton Chartered Accountants' Club

A joint dinner meeting of the Moncton Chartered Accountants' Club and the Moncton Branch of the New Brunswick Institute's Students' Society was held in the Moncton Curlers' Association rooms on Friday, May 5. Mr. J. F. O'Neill, C.A. spoke on the Dominion *Companies Act.* He was introduced by Mr. Bob Durward and thanked by Mr. Peter Stevens. Mr. W. W. B. Dick, C.A. presided.

## QUEBEC

M. Real Rondeau, C.A., of the firm of Boulanger, Fortier & Rondeau, Chartered Accountants, Quebec, has been elected president of the Quebec Board of Trade.

* * *

### Quebec Students' Society

In March 1950 the Quebec Students' Society held a Tax Forum at the Montreal High School with Mr. A. W. Gilmour, C.A. as guest speaker. Mr. Gilmour spoke on depreciation and the *Income Tax Act.*

At the final dinner meeting of the Society, held on March 23 at the Queen's Hotel, Montreal, Mr. Fabio Monet, K.C., assistant chairman of the Income Tax Appeal Board, discussed some aspects of income tax appeal.

* * *

Sheper, Steinberg & Co., Chartered Accountants, Montreal, announce the admission to partnership of Messrs. Harold Alper, C.A., George Berlind, B.Com., C.A., Kimiaki Nakashima, M.A., C.A.

# The Students' Department

J. E. Smyth, C.A., Editor

## NOTES AND COMMENTS

IT is always worthwhile going back to first principles if only for the gratification of seeing how much we have progressed. In *Accounting Theory* (which we referred to not long ago and which was published in 1922) W. A. Paton listed the following as being things which an accountant takes for granted in drawing up his financial statements:

1. The business entity;
2. The going concern;
3. The balance sheet equation;
4. The balance sheet is a complete representation of the financial condition of the enterprise;
5. Cost gives actual value for purposes of initial statement;
6. Expenses accrue while in general revenue does not;
7. A loss in asset value falls upon or extingishes the most recently accumulated proprietorship.

The meaning of some of these assumptions is not immediately apparent, and we would like to consider them one by one. We propose to give a few quotations from the book mentioned and otherwise to attempt to interpret the relevant sections, and even to add a few thoughts of our own. This should provide enough material for the present *Notes and Comments* and for those of next month, even by our own cursory standards.

We begin by observing that the accountant's assumption of "the business entity" has long been recognized at law. In fact it was the courts which created the legal fiction that a concern *with limited liability* is an artificial "person" and has an existence apart from its members. The point is, however, that the accountant seems to have slipped, perhaps by analogy, into the habit of thinking of *any* business (with or without limited liability) as having a separate existence from its owner or owners. Consider the current accounting usage of "firm" to designate a partnership business. Also, we suggest, the same assumption is involved when an accountant insists that a single proprietor (or, for that matter, partners) must keep personal drawings out of the income statement in arriving at a figure for net profits.

The second assumption of "the going concern" must, we think, have provided refuge for accountants on many occasions. If, for example, someone criticizes the valuation traditionally placed upon fixed assets by accountants (cost less depreciation) as not being anywhere near the amount the assets would realize if sold, the accountant can always reply, "But as long as the business is a *going concern* it will not have to sell its fixed assets and their market value is quite irrelevant." (Of course all this is only the negative side of the argument. Any valuation of fixed assets must be capable of being justified on the grounds that it renders the measurement of income more meaningful.)

The third assumption, that of "the balance sheet equation" is in our view

one of the more subtle assumptions and it arises at the very outset of accounting theory. What question more fundamental than "Why should the balance sheet balance anyway?" Paton has put it much more precisely than this: "Why should the legal and economic rights in a particular business situation be considered to equal precisely the sum of a list of asset values arrived at by divers and complex processes of valuation? As a matter of fact they do not, in the absence of complete liquidation." He notes, for example, that the most significant value for the equity of common shareholders (if it were ascertainable) is not to be found on the balance sheet under "Capital and surplus". It is rather the present value of whatever future dividends the directors may decide to declare on common stock.

The weaknesses of the fourth assumption (that the balance sheet is capable of telling the whole story) are easily brought to light. In one sense the assumption is tied in with the assumption of the going concern. A complete statement of present financial condition cannot be obtained without an accurate insight into the future and the latter is impossible. The conventional balance sheet of a concern which, it was known, was not going to be profitable enough *in future* to remain in business would for many purposes be an utterly futile document. An accountant must take the future for granted like anyone else. There is a limit to how far one can go in including notes as to "contingent" assets and liabilities on the balance sheet, though on the other hand there are recognized circumstances in which these things must not be overlooked.

Further, in connection with the same assumption, there are some things that defy "measurement by the dollar". To use Professor Paton's words again:

> In the individual's economy, for example, health, energy, resourcefulness, skill and similar qualifications and endowments may be of much greater ultimate consequence, even from a strictly economic point of view, than a disposal over a considerable sum of wealth . . . . In the business enterprise a well-organized and loyal personnel may be a much more important "asset" than a stock of merchandise. . . . Location, trade name, clientele, and similar considerations are likewise of extreme importance. (pp. 486-7 in *Accounting Theory*).

Finally, the assumption that the balance sheet tells the whole story includes one other most important assumption. It is at this point that Professor Paton emphasizes that accountants assume that the value of the dollar in which financial condition is assessed remains unchanged from one balance sheet date to another.

* * *

In the *Notes and Comments* of next month's Students' Department we hope to carry on and consider the last three of the assumptions listed by W. A. Paton in his 1922 book.

## ANSWERS TO LAST MONTH'S PUZZLE

(a) Sound

(b) Unsound.

*Editor's note*: Two or three of our previous puzzles were obtained from *Maths is Fun* by Joseph Degrazia and a reader has inquired concerning the name of the publishers of this book. We are advised that the book is published by Smithers and Bonellie, 178 Bay St., Toronto, 1948 ($3.50).

## PUZZLE

Each of the first nine letters of the alphabet in the problem below stands for a different figure (1, 2, 3, 4, 5, 6, 7, 8, 9) and 0 is not allowed. Find the figures corresponding to the letters.

| | |
|---|---|
| | F G |
| *Less* A B multiplied by C = | D E |
| Leaving | H I |

(By Charles F. Bishop, author of *101 Amusements for All*)

## PROBLEMS AND SOLUTIONS

Solutions presented in this section are prepared by qualified accountants and reflect of course the personal views and opinions of the various contributors. They are designed not as models for submission to the examiner but rather as such discussion and explanation of the problem as will make its study of benefit to the student. Discussion of solutions presented is cordially invited.

## PROBLEM 1

### Intermediate Examination, October 1949

*Accounting I, Question 8 (15 marks)*

Because the bookkeeper of the Wint R. Doze Co. was unable to balance the general ledger at 31 Jan. 1949, he opened a suspense account in which he entered the amount he was out of balance. He showed this suspense account on the draft balance sheet.

The following errors were subsequently discovered in the books and duly corrected, thus balancing the books and adjusting the suspense account:

(1) The addition of one of the analysis columns of the columnar purchase journal was found to be $85 short, although the other columns were added correctly.

(2) Goods purchased for $5.50 had been entered in the purchase journal as $55.00.

(3) A dishonoured note receivable for $200, returned by the company's bank, had been credited to the bank account and debited to notes receivable discounted.

(4) An item of $10 entered in the sales returns book had been posted to the debit of the customer who returned the goods.

(5) Sundry items of fully depreciated machinery were sold for $300. This sale was entered in the sales book from where it had been posted to the credit of the sales account.

(6) An amount of $60 owing by a customer had been omitted from the accounts receivable trial balance.

(7) Discounts amounting to $2.50 allowed to a customer had been posted to his account but not posted to the discount account.

(8) Prepaid taxes of $45 paid in advance in the previous year had not been brought forward as a balance in the taxes account.

There are subsidiary accounts receivable and accounts payable ledgers with their respective controlling accounts in the general ledger.

**Required:**

(a) The suspense account as set up by the bookkeeper and the adjusting entries necessary to clear the account.

(b) The entries that should be made to correct the errors not adjusted in (a).

## A SOLUTION

### Suspense Account

(a)

| | DR. | CR. | Balance |
|---|---|---|---|
| Jan. 31 | 132.50 | | Dr. 132.50 |
| Adjustment of goods purchased for resale | | 85.00 | 47.50 |
| Adjustment of discount | | 2.50 | 45.00 |
| Prepaid taxes omitted | | 45.00 | —0— |

### General Journal

| | | | |
|---|---|---|---|
| 1949 | | | |
| Jan. 31 | Dr. Purchases | 85.00 | |
| | Cr. Suspense | | 85.00 |
| | Correction for amount omitted from analysis column of purchase journal. | | |

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(b)

| | | | |
|---|---|---|---|
| Jan. 31 | Dr. Accounts payable | 49.50 | |
| | Cr. purchases | | 49.50 |
| | Goods purchased for $5.50 entered in purchase journal as $55.00. | | |

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| | | | |
|---|---|---|---|
| Jan. 31 | Dr. Accounts receivable | 200.00 | |
| | Cr. Notes receivable discounted | | 200.00 |
| | To correct entry made in cheque register when note receivable dishonoured | | |

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| | | | |
|---|---|---|---|
| Jan. 31 | Dr. Sales | 300.00 | |
| | Cr. Disposal of machinery | | 300.00 |
| | To correct posting from sales book re sale of machinery | | |

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Note: In respect to item (4) the customer's account in the subsidiary ledger would have to be credited with $20 and the balance of this account on the accounts receivable trial balance corrected. In respect of item (6) the balance would be inserted in the accounts receivable trial balance.

## PROBLEM 2

### Final Examination, October 1949

*Accounting I, Question 6 (17 marks)*

The following are the condensed balance sheets of the partnerships A & B, and C & D, as at 30 June 1949:

ASSETS:

| | A & B | C & D |
|---|---|---|
| Cash on hand and in bank | $ 95,000 | $ 60,000 |
| Accounts receivable (net) | 285,000 | 340,000 |
| Inventories | 190,000 | 395,000 |
| Land | 40,000 | 10,000 |
| Buildings & equipment less depreciation | 420,000 | 165,000 |
| | $1,030,000 | $970,000 |

LIABILITIES AND CAPITAL:

| | | |
|---|---|---|
| Accounts payable | $ 280,000 | $230,000 |
| Capital: A | 463,000 | |
| B | 287,000 | |
| C | | 368,000 |
| D | | 372,000 |
| | $1,030,000 | $970,000 |

Earnings for the past 5 years are:

| | A & B | C & D |
|---|---|---|
| Year ending June 1949 | $ 43,000 | $ 75,000 |
| 1948 | 38,000 | 62,000 |
| 1947 | 36,000 | 71,000 |
| 1946 | 41,000 | 55,000 |
| 1945 | 32,000 | 62,000 |

The profits of the partnership A & B are divided A 60, B 40, and of C & D, C 50, and D 50.

It is decided to form a limited company, the A B C D Co. Ltd. to take over the businesses of both partnerships. The A B C D Co. Ltd. will acquire all the assets and assume all the liabilities at book value. It is agreed that the shares of the new company issued to the partners shall be of such a nature and amount that the equity of each partner in assets shall be given recognition and, assuming the profits of the company shall at least equal the profits of the two partnerships in 1949, each of the partners shall receive the same share of the profits as before the formation of the limited company.

For the purposes of this question, taxes on income are to be ignored.

**Required:**

Suggest an equitable share capital structure for the new company setting out the shareholdings of each of the former partners.

## A SOLUTION

| | A | B | C | D | Total |
|---|---|---|---|---|---|
| Share of assets | $463,000 | $287,000 | $368,000 | $372,000 | $1,490,000 |
| Share of profits 1949 | 25,800 | 17,200 | 37,500 | 37,500 | 118,000 |
| or approx. | 6% | | 10% | | 8% |

Since the equity in assets is to be preserved, one should suggest an issue of $100 preferred shares in the amount of each partner's equity in the assets. These shares would be preferred as to capital only, and would rank equally with common shares as to dividends.

In order to provide for the required profit distribution, one should suggest an issue of no par value common shares for goodwill valued at $1 each to be divided among A, B, C, and D so that each partner will receive a proper proportion of dividends.

| | A | B | C | D | Total |
|---|---|---|---|---|---|
| Proportion of dividend | $25,800 | $17,200 | $37,500 | $37,500 | $118,000 |
| No. of preferred shares for assets | 4630 | 2870 | 3680 | 3720 | 14900 |
| No. of common shares to be issued | 21,170 | 14,330 | 33,820 | 33,780 | 103,100 |

Shares to be issued:

| | Preferred | | Common | |
|---|---|---|---|---|
| A | 4630 @ 100 — | $ 463,000 | 21,170 @ $1 — | $21,170 |
| B | 2870 @ 100 — | 287,000 | 14,330 @ $1 — | 14,330 |
| C | 3680 @ 100 — | 368,000 | 33,820 @ $1 — | 33,820 |
| D | 3720 @ 100 — | 372,000 | 33,780 @ $1 — | 33,780 |
| | 14,900 @ 100 — | $1,490,000 | 103,100 @ $1 — | $103,100 |

## PROBLEM 3

### Final Examination, October 1949

*Accounting I, Question 7 (8 marks)*

The capitalization of the I. O. Lotz Co. Ltd. at 30 June 1949 was as follows:

| | Authorized | Issued |
|---|---|---|
| 7% cumulative preferred shares, par value $100 per share | $1,000,000 | $600,000 |
| 6% preferred shares, par value $50 per share | 300,000 | 200,000 |
| Common shares, no par value | 50,000 shares | 20,000 shares |

The directors wish to eliminate the 7% preferred shares and the following methods of raising money to redeem these shares have been suggested:

(a) Issue 5% 20-year 1st mortgage bonds, par value $600,000 @ 94;

(b) Offer rights to common shareholders to purchase for each share now held 1 common share @ $30 per share.

Investigation reveals:

(1) All the shares presently outstanding were issued upon formation of the company in 1942;

(2) Annual dividends on the common shares have been paid at the rate of $2.10 per share and no change in rate is anticipated.

(3) Average annual net profits before income taxes, which have amounted to 50% of income, have been $270,000 and no material variations are expected in the future.

**Required:**

A statement to show the effect of the proposed methods (a) and (b) upon the earnings applicable to the common shares.

## A SOLUTION

### I. O. LOTZ CO. LTD.

EFFECT OF PROPOSALS UPON EARNINGS APPLICABLE TO COMMON SHARES

| | Present Capitalization | Proposal (a) issue 1st mortgage bonds | Proposal (b) rights to common shareholders |
|---|---|---|---|
| Average net profits | $270,000 | $270,000 | $270,000 |
| Interest on bonds | | 30,000 | |
| Amortize discount on bonds | | 1,800 | |
| Income tax @ 50% | 135,000 | 120,000 | 135,000 |
| Dividends on 7% preferred: | 42,000 | | |
| 6% preferred: | 12,000 | 12,000 | 12,000 |
| | $189,000 | $163,800 | $147,000 |

| | | | |
|---|---|---|---|
| Earnings applicable to common shares | $ 81,000 | $106,200 | $123,000 |
| Equivalent to per share | $ 4.05 | $ 5.31 | $ 3.08 |

## PROBLEM 4

### Final Examination, October 1949

*Accounting II, Question 1 (10 marks)*

It has always been the policy of Adam and Fineday, who operate a retail drug store, to sell only for cash, but now in face of increasing competition, the partners have decided to inaugurate a charge account system. Itis expected that within a few years there will be approximately 1200 small accounts.

**Required:**

Outline a system of accounting for accounts receivable and credit sales which might be used by Adam and Fineday.

## A SOLUTION

The system to record credit sales should be designed to ensure that all such sales are recorded and are recorded properly and before charge sales are made, credit approval should be obtained.

*Sales Slips* should be prepared for all charge sales and no goods purchased on account should be delivered without a copy of the original slip. These slips should:

1. be serially pre-numbered,
2. be in duplicate—the original to accompany the goods, the duplicate to go to the accounting department,
3. have at least the following information: name of store, name and address of customer, date, details of purchase, and should have provision for credit approval.

*Daily recaps* of charge sales should be prepared from the duplicate copies of the sales slips. This recap could provide for any analysis of sales required. The recap provides the basis for the charge in the books of original entry to accounts receivable and the credit to sales. Customers' accounts should be posted from the recap or from the duplicate slips. Slips should be filed for reference in numerical order. A check list should be kept by someone other than accounts receivable clerk or sales clerks to show that all sales slips are accounted for. Any missing slips should be brought to the attention of the proprietors.

*Receipts on account* should be entered in the Cash receipts book which should provide for cash received from customers on account. Postings to customers' ledgers will be made from cash book.

*Statements of account* should be sent to customers at regular intervals, presumably a few days before the end of the month. All accounts not paid within the terms of credit and any accounts exceeding credit limits, should be brought to the attention of the partners.

*Customers' ledgers* should be kept in the most convenient form. If broken into several sections (A-G H-O etc.), separate control should be kept for each section. A loose leaf ledger with statement forms and carbon covering the account is helpful because statements may be prepared at the same time as the accounts are written up. These statements may then be pulled at billing time and mailed to customers.

## PROBLEM 5

### Final Examination, October 1949

*Accounting II, Question 2 (8 marks)*

State the purposes of a budget system and explain briefly how these purposes are accomplished.

### A SOLUTION

Purposes of a budget system are to:

1. Establish a definite objective of performance for the enterprise;
2. Formulate executive policies as to future operations;
3. Promote cooperation in acceptance of policies and execution of plans;
4. Determine limits to which expenditures are to be confined;
5. Determine what funds will be required, when they will be needed, and from what sources they will be derived;
6. Set up comparisons and checks to show currently the degree and quality of operating performance;
7. Indicate when and where changes must be made in current operation in order that the planned objective may be realized.

These purposes are accomplished by planning operations in advance and subsequently at regular intervals, comparing actual performance with the objective as set out by the budget and ascertaining the reasons for variations between planned and actual performance.

## PROBLEM 6

### Final Examination, October 1949

*Accounting II, Question 3 (7 marks)*

Why should idle time labour costs be recorded separately from productive labour costs?

Outline a method of accounting for and allocation of such costs.

### A SOLUTION

Idle time labour costs should be recorded so that the extent of idle time may be ascertained and the reasons and responsibilities for such costs determined to eliminate or reduce these costs as far as possible. The system of recording labour costs should be set up in such a way that costs incurred for idle time are segregated from production costs. Time cards should show distribution of time, and any idle time should be shown separately. Idle time costs should be charged to a separate account or standing order. Idle time costs incurred from production causes, such as mechanical breakdowns, material shortages, poor scheduling, etc., may be charged separately to the various departments as a part of overhead. Idle time costs incurred from administrative or economic causes, such as guarantee of minimum annual wages, seasonal changes, cyclical changes, etc., should not be charged to production but should be shown as a separate charge to profit and loss.